

## CENTRAL INTELLIGENCE AGENCY

## INFORMATION REPORT

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SECURITY INFORMATION

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COUNTRY	USSR	REPORT	
SUBJECT	Soviet Capabilities in the Development of Cathode-Ray Tubes	DATE DISTR.	21 October 1953
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THE SOURCE EVALUATIONS IN THIS REPORT ARE DEFINITIVE.  
THE APPRAISAL OF CONTENT IS TENTATIVE.  
(FOR KEY SEE REVERSE)

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1.

The Soviets are making many types of cathode-ray tubes, such as, for TV and oscilloscopes for measuring equipment.

2.

they are a few years behind the Western Powers. For instance, the Soviets make cathode-ray tubes without ion traps, whereas the Western Powers have had this for years. In radio receiver tubes the Soviets have copied the same characteristics, including type numbers, for many years.

The Soviets are trying to develop their own tubes but it will be a few years before they can accomplish this.

3.

The cathode-ray ion trap is the most serious handicap. The tubes which they are copying today are, in general, of good quality.

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25 YEAR RE-REVIEW

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4.

ic shortages of materials which are used in the make-up of cathode-ray tubes. The end product is good.

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5.

not good enough in the manufacturing of cathode-ray tubes, but in research and development they do have some talent.

6.

types of cathode-ray tubes undergoing research and development, or which have already been developed

- a. 17 IK 1 B T.V. tube (17 cm)
- b. 23 IK 1 B T. V. tube (23 cm)
- c. 30 IK 1 B T, V. tube (30 cm)

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Magnetic coil focusing and magnetic deflection are new tubes being developed with five inch diameter (face) and electrostatic deflection.

(2)

Their tubes do not have an ion trap, but perhaps by now (March 1953) they have developed it.

(3)

Electrostatic deflection did affect the sensitivity at that time (1950).

(4)

Pertinent physical dimensions

17, 23, and 30 cm face (round) diameters.

(5)

(6)

(7)

(8)

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8.

[redacted]  
[redacted] Dr. Schiller [redacted] is  
presently (March 1953) working in the East Sector, Berlin, and is a director at  
O.S.W., in the development of cathode-ray tubes. He worked in Leningrad at

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9.

[redacted]  
[redacted] the Soviets today could meet any specifications for cathode-ray  
tubes and radio receiver tubes. It is to be noted that this is for the first model  
only and not for production line products. For instance, the image Orthicon  
was copied perfectly. They are presently trying to improve on it.

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